

**Notes, from Professor Day's  
Lectures, on Natural Philosophy**  
**"Notes, from Prof. Day's Lectures, on Natural Philosophy"**  
**1812**  
**Mss.530.St45**

American Philosophical Society  
2001  
105 South Fifth Street  
Philadelphia, PA, 19106  
215-440-3400  
[manuscripts@amphilsoc.org](mailto:manuscripts@amphilsoc.org)

## Table of Contents

---

|                                     |   |
|-------------------------------------|---|
| Summary Information .....           | 3 |
| Background note .....               | 4 |
| Scope & content .....               | 5 |
| Administrative Information .....    | 6 |
| Related Materials .....             | 6 |
| Indexing Terms .....                | 6 |
| Other Descriptive Information ..... | 7 |
| Collection Inventory .....          | 8 |
| Contents.....                       | 8 |

## Summary Information

---

|                           |  |
|---------------------------|--|
| <b>Repository</b>         | American Philosophical Society   |
| <b>Creator</b>            | Stevens, John Austin, 1795-1874  |
| <b>Title</b>              | Notes, from Professor Day's Lectures, on Natural Philosophy  |
| <b>Date</b>               | 1812   |
| <b>Call number</b>        | Mss.530.St45   |
| <b>Extent</b>             | 1.0 Volume(s) 77 p.  |
| <b>Extent</b>             | 1 vol. (77p.)  |
| <b>Location</b>           | LH-MV-E-16   |
| <b>Language</b>           | English  |
| <b>Container</b>          | 1  |
| <b>Abstract</b>           | Notes kept by the Yale undergraduate John Austin Stevens on 20 lectures on natural philosophy delivered by Jeremiah Day during the fall, 1812. Includes lectures on gravitation, mechanics, and hydrostatics (hydrology), the last including theories of rivers, springs, and groundwater. |
| <b>Preferred Citation</b> | Cite as: John Austin Stevens Lecture Notes, American Philosophical Society.  |

## Background note

---

The frail and unassuming Jeremiah Day exerted an enormous influence on the development of Yale University during the early 19th century. After graduating from Yale in 1795, Day was installed as principal of Timothy Dwight's academy at Greenfield, Connecticut, for three years, before receiving the call back to his alma mater in 1798. Serving initially as a tutor, and licensed to preach by the New Haven West Association in 1800, Day was promoted to Professor of Mathematics and Moral Philosophy in 1801, a position he filled with competence, if not brilliance. In the short span of four years, he composed three widely-used texts in the field, *An Introduction to Algebra* (1814), *A Treatise on Plane Geometry* (1815), and *The Mathematical Principles of Navigation and Surveying* (1817).

The hand-picked successor to the towering Dwight, Day was elevated to the presidency -- after some hesitation on his part -- following Dwight's death in 1817, the same year he was finally ordained in the Congregational ministry. Despite precarious health, including a heart attack in 1836 and recurrent bout of angina thereafter, Day remained in office for 29 years, and occupied a seat on the Yale Corporation for an additional two decades thereafter. During his presidency, he oversaw the establishment of a separate Theology Department (later the Divinity School) and the granting of the college's first law degree, but perhaps most importantly, he was midwife to a new philosophy of undergraduate education that drew a careful distinction between a general undergraduate program, "the foundation of a superior education," and the more applied program espoused by the professional schools. Day died in 1867 at the age of 94.

John Austin Stevens, a graduate of the Yale class of 1813, was the long-time president of the Bank of Commerce in New York City.

## Scope & content

---

John Austin Stevens' notes consist of relatively brief summaries of a series of twenty lectures in natural philosophy delivered by Jeremiah Day during the fall term, 1812. These include discussions of the basic outlines of natural philosophy as a discipline, physical properties, gravitation, mechanics, hydraulics, and the physical properties of matter.

## Administrative Information

---

### Publication Information

American Philosophical Society 2001

## Provenance

---

### Acquisition Information

Acquired, 1999.

### Processing Information

Catalogued by rsc, 2000.

## Related Materials

---

### Related Material

The APS houses sets of student's notes on natural philosophy from several other individuals, including [Henry Dilworth Gilpin's notes on Robert Maskell Patterson's course](#) at University of Pennsylvania, 1819, and Steven Wurtz's notes on Stephen Alexander's course sat Yale, 1852.

## Indexing Terms

---

### Corporate Name(s)

- Yale University

### Genre(s)

- Educational Material
- Notebooks
- Scientific Data

- Students notes

### **Personal Name(s)**

- Day, Jeremiah, 1773-1867

### **Subject(s)**

- Education
- Gravitation
- Hydraulics
- Mechanics
- Natural History
- Physics--Study and teaching--19th century
- Science and Technology

### **Other Descriptive Information**

---

This bound volume contains notes taken by John Austin Stevens, a student at Yale University, in 1812 during Jeremiah Day's course on Natural Philosophy. The twenty lectures touch on a wide range of subjects, including electricity, astronomy, magnetism, meteorology, and fluids.

**Contents**

---

**Collection Inventory**

---

**Contents**

---

Lecture 1 Philosophical lectures p.2

---

Lecture 2 [Physical properties] p.5

---

Lecture 3 [Physical properties] p.7

---

Lecture 4 [Physical properties] p.11

---

Lecture 5 [Gravitation] p.14

---

Lecture 6 [Motion, gravitation] p.19

---

Lecture 7 [Motion, gravitation] p.23

---

Lecture 8 [Motion] p.29

---

Lecture 9 Of the pendulum p.33

---

Lecture 10 Of the center of gravity p.37

---

Lecture 11 Of the mechanical powers p.41

---

Lecture 12 The wheel and axis p.43

---

Lecture 13 Perpetual motion p.48

---

Lecture 14 Projectiles, motion in vacuo  
p.50

---

Lecture 15 Central forces p.54

---

Lecture 16 Fluids p.57

---

Lecture 17 Specific gravity p.61

---



## Contents

---

Lecture 18 Principles of specific gravities  
[aerial navigation] p.64

---

Lecture 19 Hydraulics p.69

---

Lecture 20 Rivers p.72

---